

HCl Challenge Test for Optimizing Stomach Acid

Caution: Do not do this test without first consulting a qualified medical professional familiar with your personal health history if you have or have had stomach related health conditions such as GERD, ulcers, or gastritis. Taking HCl, even if you need it, can aggravate these conditions and result in increased pain and burning.

Purpose

This test is used to determine the integrity of your stomach lining and its ability to produce HCl (Hydrochloric Acid). HCl is the acid produced by your stomach to initiate protein digestion and mineral absorption. Without adequate HCl, you will not efficiently extract nutrients from your food, no matter how excellent your diet may be.

This test helps you to identify whether you are producing enough HCl to efficiently digest protein and minerals. It helps to determine the amount of supplemental HCl required or to assess the effectiveness of food and herbal approaches to improving digestion in your stomach.

Procedure

Day 1:

Take **ONE** 500-650 mg capsule (not tablet) containing both hydrochloric acid (HCL) and approximately 150 mg of pepsin after you've eaten a few bites of food at the beginning of a substantially complex meal, i.e. your largest meal of the day. **Do not test yet on simple meals** like fruit or a light, low fat salad without added concentrated protein or a simple fruit green smoothie.

**Do not take on an empty stomach or after meals
and do not open capsules and take as a powder.**



Observe how you feel throughout the meal and during the hour following. If you have discomfort (burning or warm sensation), **STOP** and proceed to *How to Handle Stomach Discomfort* then read the *Interpretation* paragraph below.

Continue with the same dose of HCl for each substantial meal that day, observing carefully for symptoms. During testing, **only take HCl at your larger meals** that contain concentrated foods (i.e. nuts, seeds, grains, legumes, fish, meat, eggs or dairy). During the initial phase of testing, do not take if your meal is just fruit, a smoothie or salad.

Day 2:

Take 2 capsules at the **beginning** of your first complex meal. Make it a meal that's similar in complexity to test meals from previous days. If you have **discomfort** (burning or warm sensation), **STOP** and proceed to *How to Handle Stomach Discomfort* then read the *Interpretation* paragraph below.

Day 3:

Take 3 capsules at the **beginning** of your first complex meal. Make it a meal that's similar in complexity to test meals from previous days. If you have **discomfort** (burning or warm sensation), **STOP** and proceed to *How to Handle Stomach Discomfort* then read the *Interpretation* paragraph below.

Day 4:

Take 4 capsules at the **beginning** of your first complex meal. Make it a meal that's similar in complexity to test meals from previous days. If you have **discomfort** (burning or warm sensation), **STOP** and proceed to *How to Handle Stomach Discomfort* then read the *Interpretation* paragraph below.



HCl Challenge Test Tracking			
Name			
Date	# HCl Capsules	Meal	Reaction



How to Handle Stomach Discomfort

If at any point you experience warmth, discomfort, or burning, drink 16 ounces of purified water to quench the reaction and stop taking HCl until the discomfort subsides.

If that's not sufficient, there are several options for pain relief -- preferred are a) and b).

- a) Drink 1 teaspoon slippery elm dissolved in 8 ounces warm water. Continue every 15 minutes until pain subsides, usually within an hour.
- b) Drink ¼ cup aloe vera juice.
- c) Drink ¼ teaspoon baking soda in 4 ounces water.
- d) Take an antacid like Alka Seltzer Gold.

Interpretation

If you had pain with the first dose, it's likely that either you don't need HCl or you have disruption of your stomach's protective mucous lining as in an ulcer or gastritis. If you have symptoms of low stomach acid as indicated on your symptom questionnaire and discomfort with taking HCl, you might try a month or two of DGL licorice and slippery elm to soothe and heal your stomach lining combined with bitters as described in step 2 below.

If you made it to Day 4 without discomfort, you likely have a severe deficit in HCl and have been experiencing significant digestive inefficiency as a result.

Corrective Action

Choose one of the following actions:

#1: Supplement with HCL

- ☐ With each of your heavier or more complex meals, take the number of HCl capsules you took the day BEFORE you experienced warmth or discomfort. Take the first HCl capsule at the beginning of the meal, after a few bites of food. After each HCL capsule, take a few bites of food before taking the next. If you take digestive enzymes, take those at the end of the meal for best results.
- ☐ With your lighter meals, retest starting from Day 1 and determine the optimal dose.
- ☐ Take at MOST 4 capsules.



#2: Stimulate your own HCl production with bitter herbs, juices, and foods

- ☐ Consume dandelion, arugula, and other bitter greens, either as juice or whole leaves chewed to juice and swished in mouth about 15 minutes before each meal.
- ☐ Consume bitters formula as a tincture, taken 15 minutes before each meal and swished.

#3 ****Preferred**** Take HCl AND bitters

- ☐ Take both HCl and bitters so that as you replenish your HCl and get the benefit of improved protein and mineral digestion; you will also restore your body's ability to make HCl.

For all Methods

- ☐ **Important:** Regardless of which option you choose, it's advisable to also supplemental with zinc as it's important for the production of HCl and is not well absorbed in low HCl states.
- ☐ Start with about 30 mg per day of zinc picolinate or zinc citrate or 1 teaspoon liquid zinc.
- ☐ If you have indications of long standing mineral or protein deficiencies, you might also consider an amino acid or protein drink supplement while you are getting things balanced as well as a liquid multi-mineral formula, taken on an empty stomach.

You should not go above the maximal HCl dose, which is approximately four HCl 650 mg capsules unless under supervision.

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Brief Summary of Major Signs of Low Stomach Acid

- Digestive woes immediately after eating like burping, gas, and bloating
- Bouts of nausea and/or unexplained diarrhea
- Soft brittle or peeling nails
- Parallel ridges on fingernails indicate malabsorption
- Dry skin on lower leg may indicate malabsorption
- Diffuse hair loss in women
- Chronically coated tongue
- Chronic bad breath
- Food allergies
- Non-responsive to supplements and dietary efforts
- Muscle cramps
- Heavy, full sensation after eating (called delayed gastric emptying)

Blood Lab Scores That Are Suggestive (Not Diagnostic) Of Insufficient Stomach Acid

- Low total protein, globulin, ferritin, calcium, magnesium, BUN
- B12 below 350 pg/ml
- Complete Blood Count (CBC): MCV over 93
- Stool testing: Imbalance of normal gut flora and overgrowth of unfriendly critters, known as dysbiosis, and lots of yeast
- Hair analysis: 5-6 low minerals (not including sodium and potassium)

Disclaimer: The information in this document has not been evaluated by the FDA is not intended to diagnose, cure, prevent or treat any disease. The information presented is for educational purposes only with the intent of teaching you how to properly nourish and balance our body and trigger your innate self-healing mechanisms.

This information is not intended as a substitute for the advice or medical care of a qualified health care professional and you should seek the advice of your health care professional before undertaking any dietary or lifestyle changes, especially if you have any serious medical conditions or health concerns.